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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/582,360	06/09/2006	Akihiko Sugiyama	040447-0283	1660

22428 7590 06/28/2011
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EXAMINER

BORSETTI, GREG

ART UNIT	PAPER NUMBER
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2626

MAIL DATE	DELIVERY MODE
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06/28/2011

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/582,360	Applicant(s) SUGIYAMA ET AL.	
	Examiner GREG BORSETTI	Art Unit 2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 June 2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 53-77 is/are pending in the application.
- 4a) Of the above claim(s) 53-59 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 60-77 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/31/2011</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Claims 53-77 are pending.
2. Claims 53-59 have been withdrawn.
3. Claims 60-77 are considered for examination.
4. Claims 60, 67, 73-77 have been amended.

Continued Examination Under 37 CFR 1.114

5. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/6/2011 has been entered.

Response to Arguments

6. Applicant argues "Amended claim 60 recites, in part, "selecting a category of additional information related to the type of sentence" and "adding the additional information to the inputted text with a change processing device so that the additional information is added before the beginning of the inputted text or after the end of the inputted text." (Emphasis added). Although of different scope, amended claims 67, 73, and 74 recite similar features. Applicants submit that Papineni does not disclose each

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and every element of at least these claims.” (Remarks, Page 8, ¶ 3) The Examiner disagrees. After further consideration of the Papineni reference, Papineni teaches the claim language as amended. Papineni, column 15, lines 54-67, selects additional information by providing specific confirmations of the index or fund, ...*confirming transfer of five thousand dollars from fidelity magellan to vanguard index trust fund five hundred. please say yes or no...* The selected additional information is the type of action and fund for the category of additional information (confirmation). Additionally, note the confirmation is in two forms, first being the “confirming transfer” at the beginning of the response, second being “please say yes or no” at the end of the response. Therefore, Papineni teaches the claim language as amended.

7. Applicant further argues “Papineni is directed to a “system for conversant interaction” and a “dialog manager having task-oriented forms.” See Papineni, Abstract, col. 3, lines 8-9. Papineni further provides an interaction between the “conversant interaction” system and a human user, see Papineni, col. 15, but as indicated in the Advisory Action, the reference generates a “semantic representation” of the “broken down” input that is used to generate a “suitable response.” See Advisory Action, page 3. In response to an input of “I would like to transfer five thousand dollars,” the response is “confirming transfer of five thousand dollars from fidelity magellan to vanguard index trust fund five hundred. Please say yes or no.” See Papineni, col. 15, lines 59-61. As such, the system of Papineni has “broken down” the inputted text but does not disclose selecting “additional information related to the type of sentence” or adding “additional information...before the beginning of the inputted text or after the end of the inputted

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text," as claimed. (Emphasis added)." (Remarks, Pages 8-9) The Examiner disagrees for the same reasons as set forth above in item 4.

8. Applicant further argues "Amended claim 60 recites, in part, "selecting a category of additional information related to the type of sentence" and "adding the additional information to the inputted text with a change processing device so that the additional information is added before the beginning of the inputted text or after the end of the inputted text." (Emphasis added). Although of different scope, amended claims 67, 73, and 74 recite similar features. Applicants submit that Gabai and Papineni, either alone or in combination, do not disclose or suggest each and every element of at least these claims." (Remarks, Page 9, ¶ 4) The Examiner disagrees for the same reasons as set forth above in item 4. Papineni teaches the amended claim language, therefore the combination of Gabai in view of Papineni also teaches the amended claim language.

9. Applicant further argues "Gabai is directed to an interactive toy that can read inputted text, translate it, and explain the cultural significance of the text. See Gabai, col. 43, lines 20-34. Although Gabai provides for "translating a menu" then explaining the "cultural significance of the dishes," see Gabai, col. 43, lines 46-47, outputting a text translation is not the same as outputting inputted text. Further, the reference is silent with regard to "selecting a category of additional information related to the type of sentence" and "additional information is added before the beginning of the inputted text or after the end of the inputted text." (Emphasis added). Applicant respectfully submits that Papineni fails to make up for such deficiencies. Accordingly, Applicants respectfully request that this rejection be withdrawn." (Remarks, Pages 9-10) The Examiner notes

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that the previous rejections were made through a combination of Gabai in view of Papineni, not singularly upon Gabai. As is shown above, Papineni provides the claim language as amended and therefore the Examiner disagrees for the same reasons as set forth above in item 4.

10. The arguments on page 10, ¶ 2- ¶ 3 stem from the same arguments as presented above. Refer to the above item 4 as to why the combinations of Gabai in view of Papineni in view of Uwakubo and Papineni in view of McAllister teach the amended claim language.

Information Disclosure Statement

11. The Information Disclosure Statement (IDS) submitted on 5/31/2011 is in compliance with the provisions of 37 CFR 1.97.

Specification

12. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. **The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided.** The

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abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

13. Claims 60, and 73-74 are rejected under 35 U.S.C. 102(e) as being anticipated by Papineni et al. (US Patent #6246981).

As per claim 60, Papineni teaches the method comprising receiving inputted text with an information processing device, the inputted text including a sentence (Papineni, column 1, lines 22-30, ... *The input and output could be either text-oriented or speech-oriented. Speech-oriented systems have a speech recognition subsystem (speech-to-*

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text system) and a speech synthesis subsystem (text-to-speech system)... column 15, lines 5-67 further teach input sentences.);

analyzing the inputted sentence with an information analysis device to determine information to be added comprising the steps of (Papineni, column 3, lines 8-19, ...*A system for conversant interaction includes a recognizer for receiving and processing input information and outputting a recognized representation of the input information. A dialog manager is coupled to the recognizer for receiving the recognized representation of the input information, the dialog manager having task-oriented forms for associating user input information therewith, the dialog manager being capable of selecting an applicable form from the task-oriented forms responsive to the input information...*):

classifying the inputted sentence as one of a plurality of types of sentences, the plurality of types of sentences including a question and an explanation (Papineni, column 15, lines 10-31, the example shows input questions and explanations, see ...*how about the vanguard index...* (question), and ...*i want to buy one hundred shares...* (explanation). Additionally, column 15, lines 54-67 notes that the user asks "I would like to transfer five thousand dollars" (explanation), which includes the sentence "transfer five thousand dollars" which is further included in the response (as a confirmation question) below on lines 59-62.);

selecting a category of additional information related to the type of sentence, the category being an expression which is suitable to the type of sentence (Papineni, column 15, lines 19-31, shows selection of additional information related to the type of sentence through a confirmation, ...*confirming purchase of one hundred Shares of*

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vanguard index trust total stock market institutional shares. please say yes or no (fund name from context)... Column 15, lines 54-67 also show this confirmation of a transfer.); and

selecting additional information in the selected category (Papineni, column 15, lines 54-67, selects additional information by providing specific confirmations of the index or fund, ...*confirming transfer of five thousand dollars from fidelity magellan to vanguard index trust fund five hundred. please say yes or no*... The selected additional information is the type of action and fund for the category of additional information (confirmation). Additionally, note the confirmation is in two forms, first being the “confirming transfer” at the beginning of the response, second being “please say yes or no” at the end of the response.); and

adding the additional information to the inputted text with a change processing device so that the additional information is added before the beginning of the inputted text or after the end of the inputted text (Papineni, column 15, lines 54-67, ...*confirming transfer of five thousand dollars from fidelity magellan to vanguard index trust fund five hundred. please say yes or no*... The confirmation (additional information added to the input text of “transfer five thousand dollars”) is in two forms, first being the “confirming transfer” at the beginning of the response, second being “please say yes or no” at the end of the response.); and

outputting the inputted text to which the information is added with an information reproducing device (Papineni, column 15, lines 54-67 teaches the dialog interaction including the confirmation that is added to the input text. Further see column 1, lines 22-

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30, ...*The input and output could be either text-oriented or speech-oriented. Speech-oriented systems have a speech recognition subsystem (speech-to-text system) and a speech synthesis subsystem (text-to-speech system)*... Column 15, lines 5-67 further teach input sentences. The information reproducing device is interpreted as the text to speech synthesizer.).

As per claim 73, Papineni teaches the computer readable medium storing computer executable instructions for performing a method on a computer (Papineni, column 7, lines 41-54 teaches a computer having a processor and memory) comprising:

analyzing a sentence in inputted text to determine information to be added comprising the steps of (Papineni, column 3, lines 8-19, ...*A system for conversant interaction includes a recognizer for receiving and processing input information and outputting a recognized representation of the input information. A dialog manager is coupled to the recognizer for receiving the recognized representation of the input information, the dialog manager having task-oriented forms for associating user input information therewith, the dialog manager being capable of selecting an applicable form from the task-oriented forms responsive to the input information...*):

classifying the inputted sentence as one of a plurality of types of sentences, the plurality of types of sentences including a question and an explanation (Papineni, column 15, lines 10-31, the example shows input questions and explanations, see ...*how about the vanguard index...* (question), and ...*i want to buy one hundred shares...* (explanation). Additionally, column 15, lines 54-67 notes that the user asks "I

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would like to transfer five thousand dollars" (explanation), which includes the sentence "transfer five thousand dollars" which is further included in the response (as a confirmation question) below on lines 59-62.);

selecting a category of additional information related to the type of sentence, the category being an expression which is suitable to the type of sentence (Papineni, column 15, lines 19-31, shows selection of additional information related to the type of sentence through a confirmation, ...*confirming purchase of one hundred Shares of vanguard index trust total stock market institutional shares. please say yes or no (fund name from context)*... Column 15, lines 54-67 also show this confirmation of a transfer.); and

selecting additional information in the selected category (Papineni, column 15, lines 54-67, selects additional information by providing specific confirmations of the index or fund, ...*confirming transfer of five thousand dollars from fidelity magellan to vanguard index trust fund five hundred. please say yes or no*... The selected additional information is the type of action and fund for the category of additional information (confirmation). Additionally, note the confirmation is in two forms, first being the "confirming transfer" at the beginning of the response, second being "please say yes or no" at the end of the response.); and

adding the additional information before the beginning of the inputted text or after the end of the inputted text (Papineni, column 15, lines 54-67, ...*confirming transfer of five thousand dollars from fidelity magellan to vanguard index trust fund five hundred. please say yes or no*... The confirmation (additional information added to the input text

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of "transfer five thousand dollars") is in two forms, first being the "confirming transfer" at the beginning of the response, second being "please say yes or no" at the end of the response.); and

converting inputted text which the additional information is added, to voice (Papineni, column 15, lines 54-67 teaches the dialog interaction including the confirmation that is added to the input text. Further see column 1, lines 22-30, ... *The input and output could be either text-oriented or speech-oriented. Speech-oriented systems have a speech recognition subsystem (speech-to-text system) and a speech synthesis subsystem (text-to-speech system)*... Column 15, lines 5-67 further teach input sentences. The information reproducing device is interpreted as the text to speech synthesizer.).

As per claim 74, Papineni teaches the terminal (Papineni, column 7, lines 41-54 teaches a computer having a processor and memory) comprising:

an information processing device for receiving inputted text, having an information changing unit for analyzing a sentence in the inputted text to determine information to be added comprising the steps of (Papineni, column 3, lines 8-19, ... *A system for conversant interaction includes a recognizer for receiving and processing input information and outputting a recognized representation of the input information. A dialog manager is coupled to the recognizer for receiving the recognized representation of the input information, the dialog manager having task-oriented forms for associating user input information therewith, the dialog manager being capable of selecting an*

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applicable form from the task-oriented forms responsive to the input information... The information processing device for receiving inputted text is interpreted as the dialog manager that accepts the text from the recognizer. The information changing unit is also supplied through the dialog manager to determine the appropriate response (analyzing the sentence input to determine information to be added).):

classifying the sentence as one of a plurality of types of sentences, the plurality of types of sentences including a question and an explanation ((Papineni, column 15, lines 10-31, the example shows input questions and explanations, see ...*how about the vanguard index...* (question), and ...*i want to buy one hundred shares...* (explanation). Additionally, column 15, lines 54-67 notes that the user asks "I would like to transfer five thousand dollars" (explanation), which includes the sentence "transfer five thousand dollars" which is further included in the response (as a confirmation question) below on lines 59-62);

selecting a category of additional information related to the type of sentence, the category being an expression which is suitable to the type of sentence (Papineni, column 15, lines 19-31, shows selection of additional information related to the type of sentence through a confirmation, ...*confirming purchase of one hundred Shares of vanguard index trust total stock market institutional shares. please say yes or no (fund name from context)*... Column 15, lines 54-67 also show this confirmation of a transfer.); and

selecting additional information in the selected category and adding the information before the beginning of the inputted text or after the end of the inputted text

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(Papineni, column 15, lines 54-67, selects additional information by providing specific confirmations of the index or fund, ...*confirming transfer of five thousand dollars from fidelity magellan to vanguard index trust fund five hundred. please say yes or no...* The selected additional information is the type of action and fund for the category of additional information (confirmation). Additionally, note the confirmation is in two forms, first being the “confirming transfer” at the beginning of the response, second being “please say yes or no” at the end of the response.); and

an information reproducing device for converting an output from the information changing unit to voice (Papineni, column 15, lines 54-67 teaches the dialog interaction including the confirmation that is added to the input text. Further see column 1, lines 22-30, ...*The input and output could be either text-oriented or speech-oriented. Speech-oriented systems have a speech recognition subsystem (speech-to-text system) and a speech synthesis subsystem (text-to-speech system)*... Column 15, lines 5-67 further teach input sentences. The information reproducing device is interpreted as the text to speech synthesizer.).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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14. Claims 60-64, 66-70, 72-75 are rejected under 35 U.S.C. 103(a) as being unpatentable by Gabai et al. (US Patent #6773344 hereinafter Gabai) in view of Papineni et al. (US Patent #6246981)

As per claim 60, Gabai teaches the method comprising receiving inputted text with an information processing device (Gabai, column 43, lines 20-34, the toy can read text for translation or speech synthesis.);

analyzing the inputted text with an information analysis device, the inputted text including a sentence to determine information to be added comprising the steps of (Gabai, column 43, lines 3-19, *...It is preferred, in such cases, that a toy not merely translate but combine its translations with other types of content that is appropriate to the given situation...* Gabai teaches the ability to read local or ancient languages, column 43, lines 20-34 where the scanner is an information analysis unit. Information to be added is appropriate to a given situation. Column 43, lines 35-43 teaches that the input may be full sentences):

adding the additional information to the inputted text with a change processing device (Gabai, column 43, lines 3-19, *...It is preferred, in such cases, that a toy not merely translate but combine its translations with other types of content that is appropriate to the given situation...* Furthermore, column 43, lines 35-50 gives examples, one of which is that the user inputs a menu and then toy subsequently explains the cultural significance of the dishes. Figs .14 and 70 show that the output can

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be processed and generated from the internal toy process or an external computer/server depending on the complexity of the input/operation.);

outputting the inputted text to which the information is added with an information reproducing device (Gabai, column 53, lines 26-36, ... *Their response includes, but is not limited to sound (including voice)... Fig. 66, 8085).*

Gabai fails to specifically teach classifying the inputted sentence as one of a plurality of types of sentences, the plurality of types of sentences including a question and an explanation; selecting a category of additional information related to the type of sentence, the category being an expression which is suitable to the type of sentence; selecting additional information in the selected category; and adding the additional information so that the additional information is added before the beginning of the inputted text or after the end of the inputted text.

However, Papineni teaches classifying the inputted sentence as one of a plurality of types of sentences, the plurality of types of sentences including a question and an explanation (Papineni, column 15, lines 10-31, the example shows input questions and explanations, see ...*how about the vanguard index...* (question), and ...*i want to buy one hundred shares...* (explanation). Additionally, column 15, lines 54-67 notes that the user asks "I would like to transfer five thousand dollars" (explanation), which includes the sentence "transfer five thousand dollars" which is further included in the response (as a confirmation question) below on lines 59-62.);

selecting a category of additional information related to the type of sentence, the category being an expression which is suitable to the type of sentence (Papineni, column 15, lines 19-31, shows selection of additional information related to the type of sentence through a confirmation, ...*confirming purchase of one hundred Shares of vanguard index trust total stock market institutional shares. please say yes or no (fund name from context)*... Column 15, lines 54-67 also show this confirmation of a transfer.); and

selecting additional information in the selected category (Papineni, column 15, lines 54-67, selects additional information by providing specific confirmations of the index or fund, ...*confirming transfer of five thousand dollars from fidelity magellan to vanguard index trust fund five hundred. please say yes or no*... The selected additional information is the type of action and fund for the category of additional information (confirmation). Additionally, note the confirmation is in two forms, first being the “confirming transfer” at the beginning of the response, second being “please say yes or no” at the end of the response.); and

adding the additional information to the inputted text with a change processing device so that the additional information is added before the beginning of the inputted text or after the end of the inputted text (Papineni, column 15, lines 54-67, ...*confirming transfer of five thousand dollars from fidelity magellan to vanguard index trust fund five hundred. please say yes or no*... The confirmation (additional information added to the input text of "transfer five thousand dollars") is in two forms, first being the “confirming

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transfer” at the beginning of the response, second being “please say yes or no” at the end of the response.).

Gabai and Papineni are analogous art because both deal with dialog interaction between a human and machine. Therefore, It would have been obvious to someone of ordinary skill in the art at the time of the invention to apply the confirmations/clarifications of Papineni with the base process of dialog interaction in Gabai because the result would have been predictable in providing a machine/user dialog interaction where the machine and user have a mutual understanding of the current dialog state. Therefore, it would have been obvious to someone of ordinary skill in the art at the time of the invention was made to combine Papineni with Gabai.

As per claim 61, claim 60 is incorporated and the combination of Gabai and Papineni teaches wherein the inputted text is translation text that is translated from a first language to a second language with an automatic interpretation device (Gabai, column 43, lines 3-19, Figs. 58 A-B teach that the toy interprets the scanned information in a language not native to the user for the user’s understanding.).

As per claim 62, claim 60 is incorporated and the combination of Gabai and Papineni teaches wherein a voice synthesis device converts the inputted text to which the information is added to a voice signal and outputs the voice signal (Gabai, column 20, lines 14-36, ...*transfer information to the user through sound (possibly using text-to-speech technology)*...).

As per claim 63, claim 60 is incorporated and the combination of Gabai and Papineni teaches wherein amount of information to be added is determined on the basis of an analysis result (Gabai, column 43, lines 44-50, ...*translating an ancient inscription a toy offers its user a historical commentary on the period and the occasion on which it was written and the subjects it concerns...*, There is inherently a determined amount of available additional information because the database stores available additional information in the database that is retrieved based upon the analysis.).

As per claim 64, claim 60 is incorporated and the combination of Gabai and Papineni teaches where the information is prestored corresponding to a keyword (Gabai, column 46, lines 40-67, the toy listens for keywords in its analysis to understand the input and produce the appropriate response. Also, example II (columns 45-46) shows that the information is related to the input keywords.).

As per claim 66, claim 62 is incorporated and the combination of Gabai and Papineni teaches wherein the information is information for prompting a target (Gabai, columns 45-46, Example II, teaches that information is added for prompting a target using voice, column 46, lines 1-5).

As per claim 67, Gabai teaches an information processing system (Gabai, column 16, lines 7-30) comprising:

an information processing device for receiving inputted text including a sentence, having an information changing unit for analyzing the sentence to determine information to be added comprising the steps of (Gabai, column 43, lines 20-34, A server (information processing device for receiving inputted text) may receive the scanned information to translate (information changing unit supplied by server) the message with greater computing power. Further, Gabai, column 43, lines 3-19, *...It is preferred, in such cases, that a toy not merely translate but combine its translations with other types of content that is appropriate to the given situation...* Therefore, the translating unit may also add translation content information. Furthermore, column 43, lines 35-50 gives examples, one of which is that the user inputs a menu and then toy subsequently explains the cultural significance of the dishes.):

adding the additional information to text (Gabai, column 43, lines 3-19, *...It is preferred, in such cases, that a toy not merely translate but combine its translations with other types of content that is appropriate to the given situation...* Furthermore, column 43, lines 35-50 gives examples, one of which is that the user inputs a menu and then toy subsequently explains the cultural significance of the dishes. Figs .14 and 70 show that the output can be processed an generated from the internal toy process or an external computer/server depending on the complexity of the input/operation.);

and an information reproducing device for converting and output from the information changing unit to voice (Gabai, column 53, lines 26-36, *...Their response includes, but is not limited to sound (including voice)...*).

Gabai fails to teach classifying the sentence as one of a plurality of types of sentences, the plurality of types of sentences including a question and an explanation; selecting a category of additional information related to the type of sentence, the category being an expression which is suitable to the type of sentence; and selecting additional information in the selected category and adding the additional information before the beginning of the inputted text or after the end of the inputted text; and an information reproducing device for converting an output from the information changing unit to voice.

However, Papineni teaches classifying the sentence as one of a plurality of types of sentences, the plurality of types of sentences including a question and an explanation (Papineni, column 15, lines 10-31, the example shows input questions and explanations, see ...*how about the vanguard index*... (question), and ...*i want to buy one hundred shares*... (explanation). Additionally, column 15, lines 54-67 notes that the user asks "I would like to transfer five thousand dollars" (explanation), which includes the sentence "transfer five thousand dollars" which is further included in the response (as a confirmation question) below on lines 59-62.);

selecting a category of additional information related to the type of sentence, the category being an expression which is suitable to the type of sentence (Papineni, column 15, lines 19-31, shows selection of additional information related to the type of sentence through a confirmation, ...*confirming purchase of one hundred Shares of vanguard index trust total stock market institutional shares. please say yes or no (fund name from context)*... Column 15, lines 54-67 also show this confirmation of a transfer.);

selecting additional information in the selected category and adding the additional information before the beginning of the inputted text or after the end of the inputted text (Papineni, column 15, lines 54-67, selects additional information by providing specific confirmations of the index or fund, ...*confirming transfer of five thousand dollars from fidelity magellan to vanguard index trust fund five hundred. please say yes or no...* The selected additional information is the type of action and fund for the category of additional information (confirmation). Additionally, note the confirmation is in two forms, first being the “confirming transfer” at the beginning of the response, second being “please say yes or no” at the end of the response.); and

Gabai and Papineni are analogous art because both deal with dialog interaction between a human and machine. Therefore, It would have been obvious to someone of ordinary skill in the art at the time of the invention to apply the confirmations/clarifications of Papineni with the base process of dialog interaction in Gabai because the result would have been predictable in providing a machine/user dialog interaction where the machine and user have a mutual understanding of the current dialog state. Therefore, it would have been obvious to someone of ordinary skill in the art at the time of the invention was made to combine Papineni with Gabai.

As per claim 68, claim 67 is incorporated and the combination of Gabai and Papineni teaches further comprising an interpretation unit for translating the inputted text from a first language to a second language and outputting the translated text to the information changing unit (Gabai, column 43, lines 3-19, Figs. 58 A-B teach that the toy

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interprets the scanned information through a translation server (interpretation unit) that can add (information changing unit) content information, in a language not native to the user for the user's understanding.).

As per claim 69, claim 67 is incorporated and the combination of Gabai and Papineni teaches wherein amount of information to be added is determined on the basis of an analysis result (Gabai, column 43, lines 44-50, ...*translating an ancient inscription a toy offers its user a historical commentary on the period and the occasion on which it was written and the subjects it concerns...*, There is inherently a determined amount of available additional information because the database stores available additional information in the database that is retrieved based upon the analysis.).

As per claim 70, claim 67 is incorporated and the combination of Gabai and Papineni teaches wherein the information changing unit comprises a memory device for storing the information corresponding to a keyword, extracts the keyword from the inputted text and selects the information stored into the memory device on the basis of the extracted keyword (Gabai, column 46, lines 40-67, the toy listens for keywords in its analysis to understand the input and produce the appropriate response. Also, example II (columns 45-46) shows that the information is related to the input keywords. Gabai, column 16, lines 7-30 further discloses the toy as a computational device which requires a memory for storing the input information for processing.).

As per claim 72, claim 66 is incorporated and the combination of Gabai and Papineni teaches wherein the information is information for prompting a target (Gabai, columns 45-46, Example II, teaches that information is added for prompting a target using voice, column 46, lines 1-5).

As per claim 73, Gabai teaches a non-transitory computer readable medium storing computer instructions for execution of a method comprising (Gabai, column 16, lines 7-30 and column 69, lines 12-15):

analyzing the inputted text with an information analysis device, the inputted text including a sentence to determine information to be added comprising the steps of (Gabai, column 43, lines 3-19, *...It is preferred, in such cases, that a toy not merely translate but combine its translations with other types of content that is appropriate to the given situation...* Gabai teaches the ability to read local or ancient languages, column 43, lines 20-34 where the scanner is an information analysis unit. Information to be added is appropriate to a given situation. Column 43, lines 35-43 teaches that the input may be full sentences):

adding the additional information to text (Gabai, column 43, lines 3-19, *...It is preferred, in such cases, that a toy not merely translate but combine its translations with other types of content that is appropriate to the given situation...* Furthermore, column 43, lines 35-50 gives examples, one of which is that the user inputs a menu and then toy subsequently explains the cultural significance of the dishes. Figs .14 and 70 show

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that the output can be processed and generated from the internal toy process or an external computer/server depending on the complexity of the input/operation.);

converting inputted text which the information is added, to voice (Gabai, column 53, lines 26-36, ... *Their response includes, but is not limited to sound (including voice)... Fig. 66, 8085*).

Gabai fails to specifically teach classifying the inputted sentence as one of a plurality of types of sentences, the plurality of types of sentences including a question and an explanation; selecting a category of additional information related to the type of sentence, the category being an expression which is suitable to the type of sentence; selecting additional information in the selected category; and adding the additional information so that the additional information is added before the beginning of the inputted text or after the end of the inputted text.

However, Papineni teaches classifying the inputted sentence as one of a plurality of types of sentences, the plurality of types of sentences including a question and an explanation (Papineni, column 15, lines 10-31, the example shows input questions and explanations, see ...*how about the vanguard index...* (question), and ...*i want to buy one hundred shares...* (explanation). Additionally, column 15, lines 54-67 notes that the user asks "I would like to transfer five thousand dollars" (explanation), which includes the sentence "transfer five thousand dollars" which is further included in the response (as a confirmation question) below on lines 59-62.);

selecting a category of additional information related to the type of sentence, the category being an expression which is suitable to the type of sentence (Papineni, column 15, lines 19-31, shows selection of additional information related to the type of sentence through a confirmation, ...*confirming purchase of one hundred Shares of vanguard index trust total stock market institutional shares. please say yes or no (fund name from context)*... Column 15, lines 54-67 also show this confirmation of a transfer.); and

selecting additional information in the selected category (Papineni, column 15, lines 54-67, selects additional information by providing specific confirmations of the index or fund, ...*confirming transfer of five thousand dollars from fidelity magellan to vanguard index trust fund five hundred. please say yes or no*... The selected additional information is the type of action and fund for the category of additional information (confirmation). Additionally, note the confirmation is in two forms, first being the “confirming transfer” at the beginning of the response, second being “please say yes or no” at the end of the response.); and

adding the additional information to the inputted text with a change processing device so that the additional information is added before the beginning of the inputted text or after the end of the inputted text (Papineni, column 15, lines 54-67, ...*confirming transfer of five thousand dollars from fidelity magellan to vanguard index trust fund five hundred. please say yes or no*... The confirmation (additional information added to the input text of "transfer five thousand dollars") is in two forms, first being the “confirming

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transfer” at the beginning of the response, second being “please say yes or no” at the end of the response.).

Gabai and Papineni are analogous art because both deal with dialog interaction between a human and machine. Therefore, It would have been obvious to someone of ordinary skill in the art at the time of the invention to apply the confirmations/clarifications of Papineni with the base process of dialog interaction in Gabai because the result would have been predictable in providing a machine/user dialog interaction where the machine and user have a mutual understanding of the current dialog state. Therefore, it would have been obvious to someone of ordinary skill in the art at the time of the invention was made to combine Papineni with Gabai.

As per claim 74, Gabai teaches a terminal (Gabai, column 16, lines 7-30) comprising:

an information processing device for receiving inputted text, having an information changing unit for analyzing the sentence to determine information to be added comprising the steps of (Gabai, column 43, lines 20-34, A server (information processing device for receiving inputted text) may receive the scanned information to translate (information changing unit supplied by server) the message with greater computing power. Further, Gabai, column 43, lines 3-19, *...It is preferred, in such cases, that a toy not merely translate but combine its translations with other types of content that is appropriate to the given situation...* Therefore, the translating unit may also add translation content information. Furthermore, column 43, lines 35-50 gives examples,

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one of which is that the user inputs a menu and then toy subsequently explains the cultural significance of the dishes.):

adding the additional information to text (Gabai, column 43, lines 3-19, ...*It is preferred, in such cases, that a toy not merely translate but combine its translations with other types of content that is appropriate to the given situation...* Furthermore, column 43, lines 35-50 gives examples, one of which is that the user inputs a menu and then toy subsequently explains the cultural significance of the dishes. Figs .14 and 70 show that the output can be processed and generated from the internal toy process or an external computer/server depending on the complexity of the input/operation.); and

an information reproducing device for converting and output from the information changing unit to voice (Gabai, column 53, lines 26-36, ...*Their response includes, but is not limited to sound (including voice)...*).

Gabai fails to teach classifying the sentence as one of a plurality of types of sentences, the plurality of types of sentences including a question and an explanation; selecting a category of additional information related to the type of sentence, the category being an expression which is suitable to the type of sentence; and selecting additional information in the selected category and adding the information before the beginning of the inputted text or after the end of the inputted text; and an information reproducing device for converting an output from the information changing unit to voice.

However, Papineni teaches classifying the sentence as one of a plurality of types of sentences, the plurality of types of sentences including a question and an explanation

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(Papineni, column 15, lines 10-31, the example shows input questions and explanations, see ...*how about the vanguard index...* (question), and ...*i want to buy one hundred shares...* (explanation). Additionally, column 15, lines 54-67 notes that the user asks "I would like to transfer five thousand dollars" (explanation), which includes the sentence "transfer five thousand dollars" which is further included in the response (as a confirmation question) below on lines 59-62.);

selecting a category of additional information related to the type of sentence, the category being an expression which is suitable to the type of sentence (Papineni, column 15, lines 19-31, shows selection of additional information related to the type of sentence through a confirmation, ...*confirming purchase of one hundred Shares of vanguard index trust total stock market institutional shares. please say yes or no (fund name from context)*... Column 15, lines 54-67 also show this confirmation of a transfer.);

selecting additional information in the selected category and adding the additional information before the beginning of the inputted text or after the end of the inputted text (Papineni, column 15, lines 54-67, selects additional information by providing specific confirmations of the index or fund, ...*confirming transfer of five thousand dollars from fidelity magellan to vanguard index trust fund five hundred. please say yes or no...* The selected additional information is the type of action and fund for the category of additional information (confirmation). Additionally, note the confirmation is in two forms, first being the "confirming transfer" at the beginning of the response, second being "please say yes or no" at the end of the response.); and

Gabai and Papineni are analogous art because both deal with dialog interaction between a human and machine. Therefore, It would have been obvious to someone of ordinary skill in the art at the time of the invention to apply the confirmations/clarifications of Papineni with the base process of dialog interaction in Gabai because the result would have been predictable in providing a machine/user dialog interaction where the machine and user have a mutual understanding of the current dialog state. Therefore, it would have been obvious to someone of ordinary skill in the art at the time of the invention was made to combine Papineni with Gabai.

As per claim 75, Gabai teaches a server comprising (Gabai, abstract, teaches that the toy can use cellular technology which is well known in the art to be able to independently process input as well as process the input through a server.);

a communication device for communicating with a terminal (Gabai, column 16, lines 18-31 teaches a connection link that establishes a data link over a network to the toy where it is at least partly wireless. Fig. 3 further describes how network connected servers may be linked to the toy. The servers require a communication device (e.g. wireless network card) for the wireless link.);

an information processing device for translating text received through the communication device from first language to second language (Gabai, column 43, lines 20-34, A server (information processing device for receiving inputted text) may receive the scanned information to translate (information changing unit supplied by server) the message with greater computing power. Gabai, column 43, lines 3-19, Figs. 58 A-B

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teach that the toy interprets the scanned information in a language not native to the user for the user's understanding.);

an information changing unit for analyzing the text translated to the second language, determining information to be added on the basis of the analysis result comprising the steps of (Gabai, column 43, lines 3-19, ...*It is preferred, in such cases, that a toy not merely translate but combine its translations with other types of content that is appropriate to the given situation...* Therefore, the translating unit may also add translation content information. Gabai teaches the ability to read local or ancient languages, column 43, lines 20-34 where the scanner is an information analysis unit. Information to be added is appropriate to a given situation.);

adding the information to the text translation (Gabai, column 43, lines 3-19, ...*It is preferred, in such cases, that a toy not merely translate but combine its translations with other types of content that is appropriate to the given situation...* Furthermore, column 43, lines 35-50 gives examples, one of which is that the user inputs a menu and then toy subsequently explains the cultural significance of the dishes. Figs. 14 and 70 show that the output can be processed and generated from the internal toy process or an external computer/server depending on the complexity of the input/operation.);

transmitting an output from information changing unit through the communication device (Gabai, column 43, lines 20-34 teaches that the server may do the translating because it has a higher computation ability. Further see Figs. 58 a-d where the toy acts as a translation device. The toy outputs the translation results and therefore the translations have been transmitted back to the toy through the communication device.)

Gabai fails to teach classifying the sentence as one of a plurality of types of sentences, the plurality of types of sentences including a question and an explanation; selecting a category of additional information related to the type of sentence, the category being an expression which is suitable to the type of sentence; and selecting additional information in the selected category and adding the information before the beginning of the text or after the end of the text.

However, Papineni teaches classifying the sentence as one of a plurality of types of sentences, the plurality of types of sentences including a question and an explanation (Papineni, column 15, lines 10-31, the example shows input questions and explanations, see *...how about the vanguard index...* (question), and *...i want to buy one hundred shares...* (explanation). Additionally, column 15, lines 54-67 notes that the user asks "I would like to transfer five thousand dollars" (explanation), which includes the sentence "transfer five thousand dollars" which is further included in the response (as a confirmation question) below on lines 59-62.);

selecting a category of additional information related to the type of sentence, the category being an expression which is suitable to the type of sentence (Papineni, column 15, lines 19-31, shows selection of additional information related to the type of sentence through a confirmation, *...confirming purchase of one hundred Shares of vanguard index trust total stock market institutional shares. please say yes or no (fund name from context)...* Column 15, lines 54-67 also show this confirmation of a transfer.);

selecting additional information in the selected category and adding the information before the beginning of the text or after the end of the text (Papineni, column 15, lines 54-67, selects additional information by providing specific confirmations of the index or fund, ...*confirming transfer of five thousand dollars from fidelity magellan to vanguard index trust fund five hundred. please say yes or no...* The selected additional information is the type of action and fund for the category of additional information (confirmation). Additionally, note the confirmation is in two forms, first being the “confirming transfer” at the beginning of the response, second being “please say yes or no” at the end of the response.).

Gabai and Papineni are analogous art because both deal with dialog interaction between a human and machine. Gabai provides the base process of translated dialog interactions between the toy and the user and Papineni provides confirmations/clarifications to a dialog process. Therefore, it would have been obvious to someone of ordinary skill in the art at the time the invention was made to modify the translation processing with additional information (as taught by Gabai) with the dialog confirmation additions (as taught by Papineni) because the result would have been predictable in providing a translation machine/user dialog interaction where the machine and user have a mutual understanding of the translation. Therefore, it would have been obvious to someone of ordinary skill in the art at the time of the invention was made to combine Papineni with Gabai.

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15. Claims 65 and 71 are rejected under 35 U.S.C. 103(a) as being unpatentable by Gabai et al. (US Patent #6773344 hereinafter Gabai) in view of Papineni et al. (US Patent #6246981) and further in view of Uwakubo. (US Patent #6513011).

As per claim 65, claim 62 is incorporated and the combination of Gabai and Papineni fail to specifically teach further comprising analyzing reaction time of a target for which the voice is output and determining the information on the basis of the analysis result with the information analysis unit.

However, Uwakubo teaches further comprising analyzing reaction time of a target for which the voice is output (Uwakubo, columns 7-8, lines 63-67 and 1-8, ...*a time period is clocked in some times, from a time when a reaction is presented to the output unit 360 (to the user) to another time when the user starts action in response to the presented reaction...*).

and determining the information on the basis of the analysis result with an information analysis unit (Uwakubo, column 8, lines 21-31, ...*generate reactions or suspends the generating of the reactions, based on instructions from the conversation manage unit 330... A reaction is generated based upon the reaction time of the user.*).

Uwakubo, Gabai, and Papineni are analogous art because all pertain to dialog interactions. Therefore, it would have been obvious to modify information analysis unit (as taught by the combination of Gabai and Papineni) with the conversation manage unit (with the clock unit in combination with the recognition unit) to analyze user reaction

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time (as taught by Uwakubo) to present output in a desired natural manner in response to the user input to make natural conversation (Uwakubo, column 4, lines 10-19).

As per claim 71, claim 67 is incorporated and the combination of Gabai and Papineni fails to teach wherein the information changing unit analyzes reaction time of a target for which the voice is output and determines the information on the basis of the reaction time.

However, Uwakubo teaches wherein an information changing unit analyzes reaction time of a target for which the voice is output and determines the information on the basis of the reaction time (Uwakubo, columns 7-8, lines 63-67 and 1-8, ...*a time period is clocked in some times, from a time when a reaction is presented to the output unit 360 (to the user) to another time when the user starts action in response to the presented reaction...*).

Uwakubo, Gabai, and Papineni are analogous art because all pertain to dialog interactions. Therefore, it would have been obvious to modify information changing unit (as taught by the combination of Gabai and Papineni) with the conversation manage unit (with the clock unit in combination with the recognition unit) to analyze user reaction time (as taught by Uwakubo) to present output in a desired natural manner in response to the user input to make natural conversation (Uwakubo, column 4, lines 10-19).

16. Claims 76-77 are rejected under 35 U.S.C. 103(a) as being unpatentable by Papineni et al. (US Patent #6246981) in view of McAllister et al. (US Patent #6385584)

As per claim 76, Papineni teaches the method comprising analyzing inputted text with an information analysis device to determine information to be added (column 3, lines 8-19, *...A system for conversant interaction includes a recognizer for receiving and processing input information and outputting a recognized representation of the input information. A dialog manager is coupled to the recognizer for receiving the recognized representation of the input information, the dialog manager having task-oriented forms for associating user input information therewith, the dialog manager being capable of selecting an applicable form from the task-oriented forms responsive to the input information...*), comprising the steps of;

adding the additional information to the inputted text so that the additional information is added before the beginning of the inputted text or after the end of the inputted text (Papineni, column 15, lines 54-67, *...confirming transfer of five thousand dollars from fidelity magellan to vanguard index trust fund five hundred. please say yes or no...* The confirmation (additional information added to the input text of "transfer five thousand dollars") is in two forms, first being the "confirming transfer" at the beginning of the response, second being "please say yes or no" at the end of the response.); and

outputting the inputted text which the information is added with an information reproducing device (Papineni, column 15, lines 54-67 teaches the dialog interaction including the confirmation that is added to the input text. Further see column 1, lines 22-30, *...The input and output could be either text-oriented or speech-oriented. Speech-oriented systems have a speech recognition subsystem (speech-to-text system) and a*

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speech synthesis subsystem (text-to-speech system)... Column 15, lines 5-67 further teach input sentences. The information reproducing device is interpreted as the text to speech synthesizer.).

Papineni fails to teach generating a random number; and selecting additional information that corresponds to the random numbers.

However, McAllister teaches generating a random number (McAllister, column 4, lines 32-44);

and selecting additional information that corresponds to the random numbers (McAllister, column 4, lines 32-44, the random numbers are scaled to the number of voice message variations available for a particular prompt);

McAllister and Papineni are analogous art because both pertain to language generation. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the confirmation responses (as taught by Papineni, yes or no confirmations, column 15) with the random wording variation (as taught by McAllister) so that “random wording variations are included in the prompts as would be characteristic of a human operator.” (McAllister, Column 2, lines 28-39)

As per claim 77, Papineni teaches an information processing system (Papineni, column 7, lines 41-54 teaches a computer having a processor and memory) comprising:

An information processing device for receiving inputted text, having an information changing unit for analyzing the inputted text to determine information to be

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added (column 3, lines 8-19, *...A system for conversant interaction includes a recognizer for receiving and processing input information and outputting a recognized representation of the input information. A dialog manager is coupled to the recognizer for receiving the recognized representation of the input information, the dialog manager having task-oriented forms for associating user input information therewith, the dialog manager being capable of selecting an applicable form from the task-oriented forms responsive to the input information...*), comprising the steps of;

adding the additional information to the inputted text so that the additional information is added before the beginning of the inputted text or after the end of the inputted text (Papineni, column 15, lines 54-67, *...confirming transfer of five thousand dollars from fidelity magellan to vanguard index trust fund five hundred. please say yes or no...* The confirmation (additional information added to the input text of "transfer five thousand dollars") is in two forms, first being the "confirming transfer" at the beginning of the response, second being "please say yes or no" at the end of the response.); and

an information reproducing device for converting an output from the information changing unit to voice (Papineni, column 15, lines 54-67 teaches the dialog interaction including the confirmation that is added to the input text. Further see column 1, lines 22-30, *...The input and output could be either text-oriented or speech-oriented. Speech-oriented systems have a speech recognition subsystem (speech-to-text system) and a speech synthesis subsystem (text-to-speech system)...* Column 15, lines 5-67 further teach input sentences. The information reproducing device is interpreted as the text to speech synthesizer.).

Papineni fails to teach generating a random number; and selecting additional information that corresponds to the random numbers.

However, McAllister teaches generating a random number (McAllister, column 4, lines 32-44);

and selecting additional information that corresponds to the random numbers (McAllister, column 4, lines 32-44, the random numbers are scaled to the number of voice message variations available for a particular prompt);

McAllister and Papineni are analogous art because both pertain to language generation. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the confirmation responses (as taught by Papineni, yes or no confirmations, column 15) with the random wording variation (as taught by McAllister) so that "random wording variations are included in the prompts as would be characteristic of a human operator." (McAllister, Column 2, lines 28-39)

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Refer to PTO-892, Notice of References Cited for a listing of analogous art.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to GREG A. BORSETTI whose telephone number is

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(571)270-3885, (FAX: 571-270-4885). The examiner can normally be reached on Monday - Friday (8am - 5pm Eastern Time).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, RICHEMOND DORVIL can be reached on 571-272-7602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Greg A. Borsetti/
Examiner, Art Unit 2626
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